# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/739,228 | 12/17/2003 | Michael L. Lamb | SJO920030054US1 | 1120 |

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| EXAMINER |
|---|
| SAEED, USMAAN |

| ART UNIT | PAPER NUMBER |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krvuspto@ipmatters.com

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 April 2009*.
2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *24,25,27,29,31 and 35-49* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *24,25,27,29,31 and 35-49* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *17 December 2003* is/are:  a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
          1.☐ Certified copies of the priority documents have been received.
          2.☐ Certified copies of the priority documents have been received in Application No. _____.
          3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
      Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1.      Receipt of Applicant's Amendment, filed 04/21/2009 is acknowledged.

Claims 1-23 are cancelled and claims 24-25, 27, 29, 31, 31-36. Claims 37-49 are

newly added.


### *Claim Rejections - 35 USC § 103*

2.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.


This application currently names joint inventors.  In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary.  Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 24-25, 27, 29, 31, 35-49 are rejected under 35 U.S.C 103(a) as being

unpatentable over **Hiltgen et al. (Hiltgen** hereinafter) (US PGPub No. 20040181529) in

view of **Benhase et al. (Benhase** hereinafter) (U.S. PG Pub No. 20040243945).

With respect to claim 37, **Hiltgen** teaches **a computer implemented method**

**for responding to an inquiry, comprising the following operations:**

**"receiving a single inquiry from a CIM client application including a unique**

**ID of a top level storage entity, wherein the top level storage entity identified by**

**the unique ID includes components associated as a component of the top level**

**storage entity and a subcomponent of at least one component"** as (**Hiltgen**

Paragraphs 0006, 0019, 0027 and claim 9).

**"using CIM client APIs in response to the single inquiry to obtain**

**information from a CIMOM using the unique ID of the top level storage entity to**

**obtain information on components and subcomponents of the top level storage**

**entity from multiple CIM objects on the top level storage entity and components**

**and subcomponents of the top level storage entity in the CIMOM"** as (**Hiltgen**

Paragraphs 0018-0019, 0027).

**"creating a plurality of storage objects in a computer readable storage**

**medium including information on the top level storage entity and components**

**and subcomponents"** as (**Hiltgen** Abstract).

**"populating the created storage objects with information received from the**

**CIMOM including identifying the entities in the top level storage entity,**

**components and subcomponents, and wherein properties of each storage object
map directly to properties of at least one CIM class used to represent the top level
storage entity and components and subcomponents of the top level storage
entity in the CIMOM"** as (**Hiltgen** Abstract and Paragraphs 0006, 0019, 0023, 0025
and 0027).

**"returning information on the storage objects to the CIM client application
that sent the inquiry"** as (**Hiltgen** Abstract and Paragraph 0006).

**Hiltgen** teaches the elements of claim 1 as noted above but does not explicitly
teaches **"parent-child relationships among the top level storage entity and the
components and subcomponents of the top level storage entity."**

However, **Benhase** teaches **"parent-child relationships among the top level
storage entity and the components and subcomponents of the top level storage
entity"** as (**Benhase** Abstract, and figure 4).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because
**Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected
one of the storage resources, such as information regarding copy relationships with
other storage resources.  The nodes may be active to enable a user to obtain properties
of the associated storage resource, such as resource size and type.


With respect to claim 24, **Hiltgen** teaches **"wherein the plurality of storage
entity objects include at least one of a disk array system, storage pool, volume,**

**host system, Fibre Channel; Port, and disk Disk Array System, Storage Pool,**

**Volume, Host System, FCPort, and Disk, objects"** as (**Hiltgen** Paragraph 0019).

With respect to claim 25, **Hiltgen** does not explicitly teaches **"wherein the a top**

**level storage entity comprises the disk array system, and wherein each object**

**other than the disk array system is associated as a component of the disk array**

**system object or a subcomponent of one of the components of the disk array**

**system object."**

However, **Benhase** teaches **"wherein the a top level storage entity**

**comprises the disk array system, and wherein each object other than the disk**

**array system is associated as a component of the disk array system object or a**

**subcomponent of one of the components of the disk array system object"** as

(**Benhase** Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because

**Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected

one of the storage resources, such as information regarding copy relationships with

other storage resources.  The nodes may be active to enable a user to obtain properties

of the associated storage resource, such as resource size and type.

With respect to claim 27, **Hiltgen** does not explicitly teaches **"wherein the**

**creating operation comprises creating a plurality of storage objects and wherein**

**the storage objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile."**

However **Benhase** teaches **"wherein the creating operation comprises creating a plurality of storage objects and wherein the storage objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile"** as (**Benhase** Figures 4, 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because **Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected one of the storage resources, such as information regarding copy relationships with other storage resources. The nodes may be active to enable a user to obtain properties of the associated storage resource, such as resource size and type.

With respect to claim 29, **Hiltgen** teaches **"wherein the inquiry is received from a SRM CIM Client Application"** as (**Hiltgen** Figure 1).

With respect to claim 31, **Hiltgen** teaches **"wherein the inquiry includes the unique ID for a disk array Storage Pool"** as (**Hiltgen** Paragraphs 0006, 0019, 0027 and claim 9).

**Hiltgen** teaches the elements of claim 31 as noted above but does not explicitly teaches **"wherein the components and subcomponents for which information is obtained comprise storage pools and disks, and wherein the relationships**

**indicate a relationship of storage pools to the disk array system and of the disks**

**to the storage pools."**

However, **Benhase** discloses **"wherein the components and subcomponents**

**for which information is obtained comprise storage pools and disks, and wherein**

**the relationships indicate a relationship of storage pools to the disk array system**

**and of the disks to the storage pools"** as (**Benhase** Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because

**Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected

one of the storage resources, such as information regarding copy relationships with

other storage resources. The nodes may be active to enable a user to obtain properties

of the associated storage resource, such as resource size and type.


With respect to claim 35, **Hiltgen** teaches **"wherein the inquiry includes the**

**unique ID of a component storage entity, and wherein the receiving, obtaining,**

**creating, populating, and sending operations are repeated to obtain information**

**concerning the component storage entity and subcomponents of the component**

**storage entity"** as (**Hiltgen** Paragraphs 0026, 0031).


With respect to claim 36, **Hiltgen** teaches **"wherein the inquiry includes the**

**unique ID of a component storage entity, and wherein the receiving, obtaining,**

**creating, populating, and sending operations are repeated to obtain information**

**concerning the component storage entity and the component storage entity's**

**relationships to other components"** as (**Hiltgen** Paragraphs 0026, 0031).

Claims 38-49 are essentially the same as claim 24-25, 27, 29, 31, 35-37 except

that they recite claimed invention as a system and a program product, and are rejected

for the same reasons as applied hereinabove.

## *Response to Arguments*

3.      Applicant's arguments filed on 04/21/2009 have been considered but are moot in

view of the new ground(s) of rejection.

In these arguments applicant relies on the amended claims and not the original

ones.  See above rejections for response to arguments.

Examiner has withdrawn the previous 103 rejection and has provided a new 103

rejection with new references Hiltgen et al. US PG Pub No, 20040181529 and Benhase

et al. U.S. PG Pub No. 20040243945.

## *Conclusion*

4.      Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

### *Contact Information*

5.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to USMAAN SAEED whose telephone number is

(571)272-4046.  The examiner can normally be reached on M-F  8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (571)272-3978.  The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


/Usmaan Saeed/                                          Usmaan Saeed
Examiner, Art Unit 2166                                 Patent Examiner
July 31, 2009                                           Art Unit: 2166


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Primary Examiner, Art Unit 2166